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ABSTRACT

Organizational development (OD) is a systematic approach to (1) identifying the needs, problems, and objectives of an organization; (2) providing feedback needed for decisions regarding design and implementation of change strategies; (3) implementing and monitoring actions; and (4) evaluating their effects. Decisions in all phases of OD are facilitated through evaluation. The context, input, process, and product (CIPP) evaluation paradigm provides an approach to evaluation which is consistent with and supportive of the OD framework. The evaluation activities of the Planning Studies in Continuing Education Division of the Pennsylvania State University have, through provision of context, input, and product evaluation, supported the organizational development of the Pennsylvania Adult Basic Education program. (Author/CTM)

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The Role of Evaluation in Organizational Development
Evaluation in Support of the Pennsylvania ABE Improvement Program
Prepared for Symposium "Organizational Development as a Change Strategy in the Schools: Theoretical Rationale and Case Study"

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This paper discusses the role of evaluation in organizational development (OD) when OD is used as a change strategy in educational systems. An example is provided of the use of evaluation methods and results in the improvement of the Pennsylvania Adult Basic Education (ABE) Program.

I. Organizational Development

Organizational development has been defined as: a planned, managed, systematic process to change the culture, systems and behavior of an organization, in order to improve the organization's effectiveness in solving its problems and achieving its objectives (Rush, 1973, p.i).

Rush's paradigm (Figure 1) of the OD process contains five major activities, combining both a linear and a cyclical pattern, of problem recognition, organizational diagnosis, feedback, development of change strategies, interventions, and measurement and evaluation (for the purposes of this paper, this last activity will be referred to as evaluation since evaluation implies measurement).

For planned change to occur there must be a recognized need or problem. Educational system personnel can usually throw out a dozen or more "off the top of their heads." However, many times such verbalized needs and problems may not be the actual ones, may be the ones most pressing at the moment, may be poorly defined, or may represent needs or problems tempered by administrative leveling. There is need for systematic determination of needs and problems.

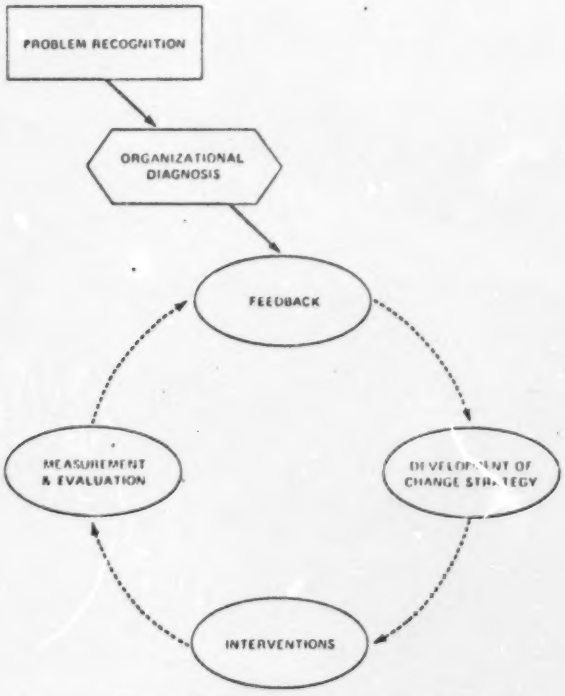

Figure 1: A Model of the Organization Development Process

From Organization Development: A Reconnaissance by Harold M. F. Rush

Such a systematic determination of needs and problems is the domain of organizational diagnosis. Often such activities are referred to as "needs assessment," although needs assessment doesn't encompass enough to be synonymous with organizational diagnosis. Diagnosis implies, in addition to determining needs and problems, the determination of organizational resources, opportunities, constraints, and desires to meet needs or solve problems.

Problem recognition and organizational diagnosis are closely related phases that may be inseparable in actual practice.

Feedback is the imparting of information for use in further need or problem identification and planning. It should be noted that feedback could result in another look at organizational diagnosis. Perhaps there should be a two-way arrow between feedback and organizational diagnosis, since many times feedback will initiate further needs assessment, resource assessment activities.

Feedback provides the information needed to make decisions regarding the development of change strategy alternatives and the ultimate selection of a strategy or hybrid of alternatives. Such selection could be based and planned in terms of Baldridge and Deal's (1975) components of: goals, environment, technology, formal structure, and actors.

Intervention refers to the implementation of the change strategy and the ongoing management of the intervention. This includes monitoring progress, making adjustments, and evaluation of interim outcomes.

Evaluation, in Rush's paradigm, refers to the assessment of the extent to which needs are met, problems are solved, or objectives attained. It is similar to summative evaluation or evaluation which occurs at the completion of a program. When evaluation results are fed back for purposes of further strategy development they would be similar to uses made of formative evaluation results.

II. Evaluation

Since 1965, several evaluation paradigms have been proposed, developed, and used successfully in a wide variety of educational systems. Popham (1975) has categorized these models as belonging to one of four groups:

1. Goal-attainment
2. Judgmental, emphasizing intrinsic criteria
3. Judgmental, emphasizing extensic criteria
4. Decision-facilitative

Of the decision-facilitative models, the CIPP model developed by Stufflebeam, et al. (1971) is one of the best known and used. The definition of evaluation used when the CIPP model was developed was: "Evaluation is the process of delineating, obtaining, and providing useful information for judging decision alternatives."

As a step in the development of the CIPP model, educational decision settings were described. Homeostatic decisions involve maintenance of normal balance in an educational system, incremental decisions involve continuous improvement of an existing educational system, neomobilistic decisions involve large innovative efforts to solve significant problems, and metamorphic decisions involve complete, far-reaching changes in the entire educational system. Of these four types, the one which typifies most educational settings is the incremental decision setting, also referred to as a developmental approach.

The CIPP acronym is used to represent four types of decision-facilitative evaluation: context evaluation, input evaluation, process evaluation, and product evaluation. Each type of evaluation has a specific purpose which relates to subsequent decision making.

Context evaluation supports planning decisions involving the identification of current needs, problems, or opportunities and results in the determination of educational system objectives. It is also used to define the environment in terms of actual and desired environment conditions. Activities associated with context evaluation are literature searches, use of outside consultants, planning committees, assessment of student needs, assessment of community values, attitudes, and priorities, and projections of future needs and resources.

Input evaluation is the process of providing information for structuring alternative strategies, evaluating alternatives, and developing change strategy plans. Alternative strategies are evaluated on the basis of potential costs and benefits, staffing needs, timing, budget constraints, and likelihood of adequate personal involvement and commitment of affected parties. Methods input evaluation might involve use of advisory committees, workshops, Delphi surveys, or nominal group process techniques.

Once the change strategy has been selected and initiated, process evaluation is used to determine implementation problems, feed back information for program decisions, and maintain records of activities and interim outcomes. Process evaluation is used to assure that the program is being implemented as designed or modified in the light of more current information. Methods of process evaluation involve use of logs, staff meeting notes, interviews, studies of linkage agent interations, or updated PERT charts.

Product evaluation serves to measure the extent to which program objectives have been attained at the end of or at opportune times of the program cycle. In addition, product evaluation involves the determination

of both positive and negative side-effects of the program. The methods of product evaluation involve the collection and interpretation of student achievement, student attitude, staff attitude, and other measures. Product and process evaluation are closely related. Product evaluation seeks to determine what happened while process evaluation seeks to determine why it happened.

Although the four types of evaluation of the CIPP model have been presented as a temporal sequence, it should be noted that the process is cyclical. For example, if it is found during input evaluation that there is no promising strategy, there may be a need to cycle back to the context evaluation phase for another look at the needs and/or problems. Similarly, if process evaluation indicates that the program is not operating as designed and minor modifications are ineffectual, there is probably a need to cycle back to the strategy design and selection phase. Also, product evaluation may point out new or different needs or problems which may indicate a need for a more current or differently focused context evaluation.

III. Relationship Between OD and Evaluation

It should be obvious that many of the components of the OD paradigm and the CIPP evaluation model are the same or very similar. The CIPP evaluation model seems well suited for the purposes and methods of OD. Context evaluation serves to help identify problems and needs and provides information for organizational diagnosis. Input evaluation provides feedback to decision makers for the purposes of selection and development of change strategies. Interventions are monitored, modified, and evaluated

using the procedures of process evaluation. Product evaluation serves the typical end of cycle assessment of the attainment of program objectives.

Organizational development is a change strategy which requires continuous cyclical evaluation of goals, environment, technology, formal structure, and actors. The CIPP model provides a framework for looking at these as well as other areas of concern. Figure 2 is used to summarize the relationship of OD and evaluation as operationalized through the CIPP model.

Organizational development relies heavily on the use of information to support decision-making. Therefore, it is strongly advised that a competent evaluator or team of evaluators be involved at all phases of the OD process. For the most part, these evaluators should be internal to the system; they must be viewed as partners in the system, with the same constraints, benefits, and risks of other system personnel. Efforts of such an internal evaluation individual or team may be complemented by external evaluators for special issues or evaluation auditing. The involvement and commitment required for successful OD operations imply the critical need for and use of internal evaluators.

OD Component	OD Component Purpose	Type of Decision Being Made	Type of CIPP Evaluation Serving Decision-Makers	Typical Information Collection Techniques
Problem recognition	Determining needs and problems	Initial planning	Context	Interviews, unstructured surveys, literature searches, informal conversations
Organizational diagnosis	Determining goals and objectives	Planning	Context	Structured surveys, such as Delphi, planning committees, nominal group techniques, existing records, force field analysis
Feedback	Providing information for identifying alternative change strategies	Structuring	Input	Literature searches, outside constraints, nominal group techniques, review of existing educational products and procedures
Development of change strategy	Choice of and planning for implementation of change strategy	Structuring	Input	Staff attitudes, PERT network design, budget records, advisory committees, workshops
Intervention	Implementation of change strategy	Implementing	Process	Interviews, logs, anecdotel records, staff meeting notes, linkage case studies, updated PERT charts
Evaluation	Assessment of extent to which objectives attained, problems solved, needs met	Continuation, Rcycling	Product	Achievement/attitude/performance measures from target groups; other indicators of: objectives attained, needs met, problems solved

Figure 2. Relationship of OD and CIPP Evaluation

IV. The Pennsylvania ABE Evaluation Effort

The central state department staff of the Pennsylvania ABE program does not include an educational evaluator. Most evaluation conducted by PDE for ABE programs consists of collecting information for the completion of federal forms on enrollments and characteristics of ABE students, and collecting progress reports from special projects funded through a 309 demonstration projects program. The ABE program in Pennsylvania has not, nor could they initiate a thorough organizational development effort because of lack of funds, lack of trained personnel, and lack of ABE program consistency. Although the state ABE personnel view evaluation as an important aspect of program and organizational development, they are not in a position to see that it it is done on any wide scale. One option is to contract for certain evaluation services, which they have done with the Planning Studies in Continuing Education Division of The Pennsylvania State University.

Since 1973, Planning Studies has been involved in five major organizational development evaluation efforts supported by the Pennsylvania ABE program. In 1973, Planning Studies collected information on student enrollments and staff characteristics for use in federal reports. During 1975-76, Planning Studies conducted a survey administration, a program assessment and two feedback - workshop sessions designed to accomplish the objective of helping "improve the administrative and program effectiveness of the Commonwealth's Adult Basic Education program by providing the contractor (PDE) with information designed to assess program operations, student performance, and program management or monitoring."

Since these activities have been presented in greater detail in other sources (Lindsay, 1977) (Zelonka, 1977), this paper will concentrate on the results of these activities in relation to Rush's OD structure and the CIPP evaluation paradigm.

The survey conducted was referred to as the "administrative survey." This survey took the form of context and to some extent product evaluation. The major content of the report related to organizational diagnosis concerns by providing a profile of ABE programs, staff, and students. In addition, the report provided narrative summaries made by ABE program adminstrators.

Actual survey results are too numerous to present in this paper. In general, results related to program administrative settings, number and times of classes, professional personnel descriptions, type of staff training, initial and continuing enrollments, enrollment levels in beginning, intermediate, GED, and ESL classes, number of students completing program levels, sex, age, and race of students, and programs for Southeast Asian refugees.

As was pointed out earlier in this paper, product evaluation can be used to assess progress to date as well as point out further needs and problems. One part of the administrative survey report compared 1975-76 results with results of earlier administrative surveys. Ten major program goals had been identified for the 1975-76 time period. Of these ten goals, seven were met, two were partially met, and one was not met. Based on this report and other information, the Pennsylvania ABE program staff has determined new and modified goals and objectives.

The program assessment effort collected information for use in determining "what changes might improve the effectiveness of the Commonwealth's ABE program" (Lindsay, et al., 1976). Program assessment dealt with two major topics: student functional competency assessment based on the APL study conducted by Northcutt, et al. (1975), and program analysis based on Mezirow's (1975) ABE evaluation model. Data from this program assessment activity were presented in feedback workshops of ABE administrators, supervisors, teachers, and counselors using nominal group techniques to determine recommendations for program changes. These efforts of data collection, feedback, and review fall into Rush's OD model as context and input evaluation supporting the development of change strategies. Each of these two major topics are presented briefly, including the methods used and general results.

A. APL Assessment

The "adult performance level" (APL) construct was developed by Northcutt, et al. at the University of Texas to describe adult functional competency needs for basic skills in general knowledge areas. Figure 3 presents the APL knowledge - skills matrix developed from the results of a national assessment effort. APL test items had been developed, field-tested, and used to construct instruments for measuring adult performance levels in these areas.

The Pennsylvania APL assessment project developed, based on multiple matrix sampling methods (Shoemaker, 1973), four parallel test forms which were adminstered to a sample of 1580 ABE students in Pennsylvania programs.

GENERAL KNOWLEDGE AREAS

BASIC SKILLS

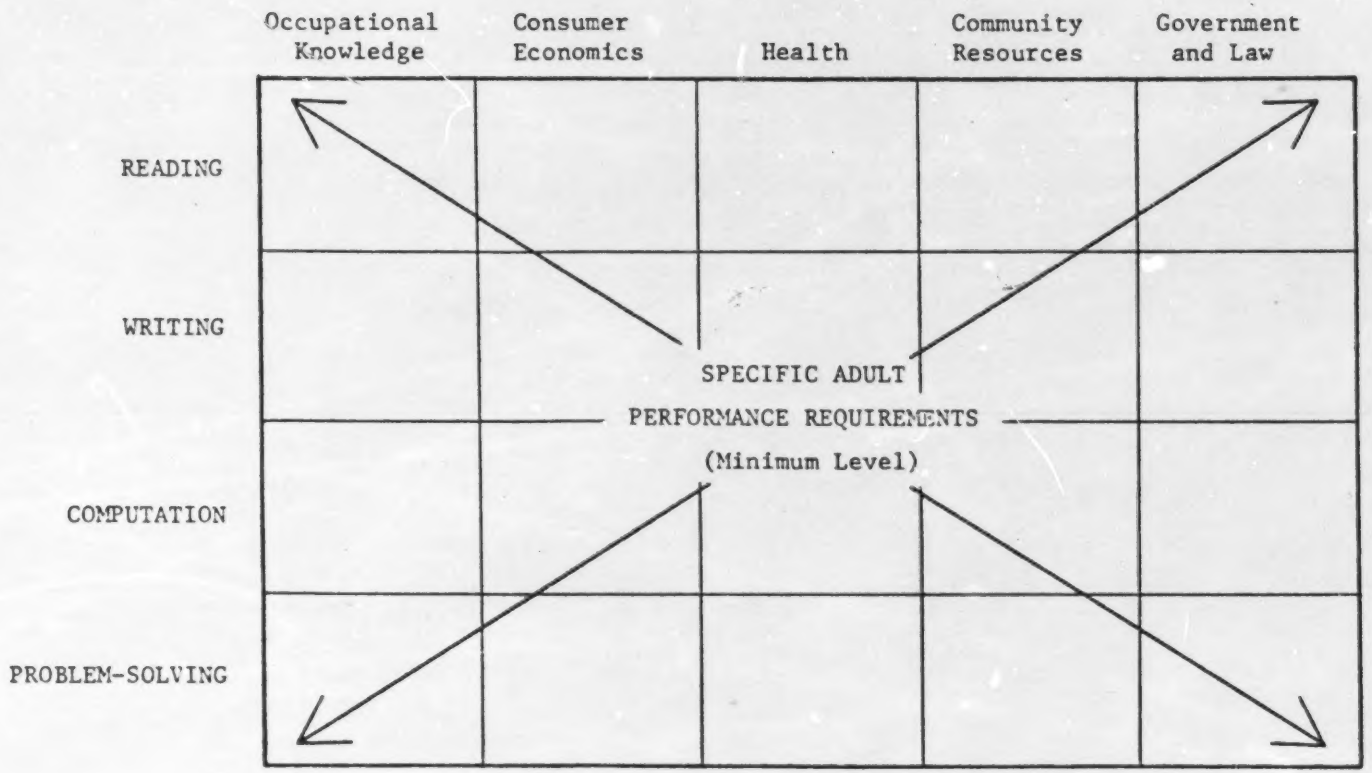

Figure 3. The APL Knowledge-Skills Matrix (Northcutt, 1975).

APL test results are used to categorize respondents as being in one of three competency levels: APL I, adults who function with difficulty; APL II, adults who are marginally deficient; and APL III, proficient adults. Table 1 presents the results of the Pennsylvania assessment in terms of percentages of students falling in each of the APL levels for the knowledge and skill areas. The results indicate major deficiencies in all of the knowledge and skill areas.

Table 1

APL Competency Levels in Specific Knowledge and Skill Areas for Total ABE Student Sample (n = 1,580)

APL Area	Percentage by APL Competency Level		
	I	II	III
Knowledge			
Occupational Knowledge	46	29	25
Health	44	31	25
Community Resources	46	29	25
Consumer Economics	72	17	11
Government and Law	53	26	21
Skill			
Writing	40	26	34
Reading	50	31	19
Computation	69	19	12
Problem-Solving	66	26	8

(Lindsay, et al., 1976)

In addition to the performance assessment, students and ABE teachers were asked to react to the APL concept by responding to a set of 20 behavioral statements regarding priorities of needs and interest in taking or teaching courses or other educational offerings related to the knowledge and skill areas. Actual student performance and student and teacher attitude data were presented to 33 ABE staff persons in a workshop designed to identify APL curriculum priorities. Table 2 presents the general results of this part of the APL assessment effort. These

Table 2

Comparative Rankings of APL Knowledge Areas for Each ABE Grade Level by Student Interest, Teachers' Estimates of Importance, and Workshop Participants' Priorities for Curriculum Development

APL Knowledge Area	Ranking of Student Interest (Survey Data)			Teachers' Ranking of Importance (Survey Data)			Priority for Curriculum Development (Survey Data)		
	Instructional Level			Instructional Level			Instructional Level		
	1-4	5-8	9-12	1-4	5-8	9-12	1-4	5-8	9-12
Occupational Knowledge	1	2	3	1	1	1	1	1	1
Consumer Economics	2	5	1	2	2	2	2	2	2
Health	5	3	4	5	3	3	3	3	3
Community Resources	3	4	5	4	5	4	4	4	4
Government and Law	4	1	2	3	4	5	5	5	5

(Lindsay, et al., 1976)

results indicate the need for curriculum development priorities in the areas of occupational knowledge and consumer economics. There was need for all five knowledge areas, so the other three areas are considered important, but of lower priority. These priorities provided input to the state ABE staff for their use in making decisions regarding the funding of special 309 projects in APL curriculum development. There are presently several APL curriculum efforts underway in Pennsylvania. The largest single effort is being conducted by the Center for Cooperative Research with Schools of the College of Education of The Pennsylvania State University. It is the development of a competency-based ABE curriculum, level 5-8, in the APL health knowledge area. This curriculum is being developed for national dissemination and includes ten half-hour television tapes to serve as motivational and advance organizer devices, student workbook materials, teacher instructional and resource guides, and a bank of criteria-referenced test items relating to the APL health objectives, in both knowledge and skill areas. The curriculum is named "Handle with Care."

In this case, the OD cycle is in its latter stage. Several needs were identified, feedback was provided for deciding on a strategy to meet a need. The strategy was chosen and instruction and evaluation are occurring through the field-testing of curriculum units.

B. Program Assessment

Program assessment was based on staff surveys followed-up by a feedback workshop to make recommendations for state program development.

The staff surveys requested respondents to evaluate the effectiveness of their own ABE programs in terms of the six major program areas of: goal setting, staffing, in-service education, collaboration, recruitment, and instruction, as specified in Mezirow's ABE evaluation model. Results, based on the responses of 277 ABE administrators, supervisors, teachers, and counselors, were presented in summary form, to 55 participants in a Program Operations Workshop. Other information from student surveys, previous staff surveys, and the APL assessment was available to participants. Six small groups of participants were constructed, each one to concentrate on the results and proposal of alternative solutions within one of the six evaluation areas. The actual procedure was as follows:

1. Participants were assigned to groups, at their request as much as possible
2. The group received the available data summaries relating to its evaluation areas
3. The group identified as many problems as possible relating to its evaluation area
4. Group members placed priorities on the problems using a secret ballot
5. The most pressing problem was identified
6. The group proposed as many solutions as they could think of to solve the problem
7. Again, using a secret ballot, the group members prioritized solutions in terms of feasibility and promise
8. Once the solution was chosen, the group formulated plans for implementation of the solution.

This activity falls into the category of input evaluation which is to make decisions regarding change strategy identification and development. From this group processing technique, recommendations were made to

the Pennsylvania ABE program. These have been specified in other documents (Lindsay, 1977) (Lindsay, et al., 1976). The results of this effort are reflected in newer goal statements and in specification of areas of funding for 1977-78 special 309 projects funded through the Pennsylvania ABE program.

V. Summary

Organizational development is a systematic approach to identifying needs, problems, and objectives, providing feedback needed for decisions regarding design and implementation of change strategies, implementing and monitoring actions, and evaluating their effects. Decisions in all phases of OD are facilitated through evaluation. The CIPP evaluation paradigm provides an approach to evaluation which is consistent with and supportive of the OD framework.

In Pennsylvania, the evaluation activities of the Planning Studies in Continuing Education Division of The Pennsylvania State University have, through provision of context, input, and to some extent product evaluation, supported the organizational development of the Pennsylvania ABE program.

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